[HYBRID ELECTRIC VEHICLE CONTROL STRATEGY TO PROVIDE VEHICLE CREEP AND HILL HOLDING]

Abstract of Disclosure

The invention is a control strategy for a hybrid electric vehicle (HEV) to meet driver expectation for hill holding or creep capability found in conventional automobiles with an automatic transmission. The strategy is activated when the PRNDL is in drive or low-drive position and no accelerator applied. Alternatively, the strategy can also require no brake being applied as well. The strategy can use the traction motor, generator motor or engine to achieve creep or hill holding. The engine is used when the traction motor temperature exceeds a predefined value or the engine is already running. If the engine is not running, the strategy can determine when to start it and regulate the amount of engine torque needed to hold the vehicle on the hill using the generator motor. The invention maintains efficient engine usage and minimizes battery usage and loss.

Figures